

DISRUPTIONS AMONG DIGITAL NATIVES IN TERTIARY LEVEL CLASSROOMS

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Abstract: *Students today grow up with technology in hand. They are identified as digital natives or net generation as they are grown up with digital technology and the internet. In the current era, students from most countries which are developed are using digital technologies and the internet for their learning in tertiary level classrooms. This typically refers to those who had grown up since the mid to late 1990's, when the Internet became accessible to a wide population (Herman, 2017). Millennial and Generation Z populations are also included in the usage of digital technologies. Digital devices help students to stay connected and communicate around the world. Although these devices are an advantage to students yet, some are being too dependent especially in their tertiary level classrooms and thus, these digital devices become disruptive. When digital devices become disruptive, it contributes to serious alarming issues among students especially in hindering the learning process in tertiary level classrooms. These are the challenges faced by most educators in tertiary level classrooms. Therefore, to curb these challenges, it is vital for educators to identify and learn the digital habits of students before developing strategies overcoming these issues. It is vital to find out the causes of disruptions in the learning process in tertiary level classrooms. This research was conducted among undergraduate students in UTAR. The findings concluded that most of the students use their digital devices for various purposes. Among the purposes, it is mainly found that unnecessarily, students are using their digital devices in the tertiary level classrooms without specific purposes and especially uses their devices which do not relate to the teaching and learning process in tertiary level classrooms. Thus, this leads to students being disruptive in the classrooms and eventually impact on students' academic excellence as well as the university's overall academic achievement. Through the findings from this study, it is important for educators in the tertiary classrooms to implement effectual steps in the future to limit students from using their digital devices for unnecessary purposes in the tertiary level classrooms.*

Keywords: *Digital Natives; Digital Devices, Disruptive Technologies, Tertiary Level Classrooms.*

Introduction

In today's classrooms, there is an array of mobile digital devices, thanks to tech-savvy students. Better known as digital natives, these students have grown up being surrounded by computers, digital media players, tablets, smartphones and other gadgets since their childhood that such devices now form an integral part of their daily lives (Kobl, 2008). These devices, especially connected ones, allow students an easy access and storage of all sorts of knowledge almost instantaneously wherever they are, with minimal effort as opposed to using earlier technologies. In tertiary level classrooms, they also offer exciting opportunities to enhance students' learning through creativity, collaboration and connection. Mobile devices are no longer considered as mere social toys but necessary tools in students' daily activities. Pertierra in Traxler (2010) describes cell phones in particular, as resembling "tools or prosthetic devices as extensions of the body allowing us to connect anytime, anywhere with anybody".

Nevertheless, as students grow increasingly dependent and inseparable from their digital devices, the gadgets often lead to debates. Many educators view them as a source of disruptive that hinders learning with some banning them from the classrooms. Some studies in fact, revealed that in-class misuse of technology disrupts not just those engaged in irrelevant activities but also others seated nearby (Lam & Toong, 2012). Moreover, Kobl (2008) claims that students are often unaware of and are indifferent to the consequences of their use and misuse of technology. Such situations often lead to distress among educators in their attempt to maintain students' attention and engagement in class. Even supporters of digital devices emphasises on the fact that digital devices' in-class use need to be controlled (Fried, 2006).

Digital native students have no doubt, fundamentally changed compared to earlier generations. Some argue that spending long hours using digital devices has enhanced these digital natives' art in navigating and filtering the flood of information they receive and their skills in multitasking (Prensky, 2001; Puybaraud & Hahn, 2012). However, according to psychologist Daniel Goleman, "the idea of multitasking is a myth" (Schwartz, 2013). He claims that when one multitasks, he is actually applying "continuous partial attention," where the brain switches back and forth quickly between tasks. This creates a problem because as a student shuffles between doing homework and updating his Facebook status, his ability to focus on either task deteriorates. Goleman adds that "that trend is less pronounced when the actions are routine, but it could have significant implications for how deeply a student understands a new concept" (Schwartz, 2013).

No doubt, technology ownership and usage rates among students will continue to rise. With the latest devices, software, and innovative digital instruments in the classrooms, maintaining students' focus and attention will also be an increasingly challenging endeavor. Thus, educators need to study students' digital habits first before developing strategies to curb those that are counter-productive. In doing so, this study delves into students' digital devices' usage and frequency of use for non-class related purposes where it becomes disruptive in tertiary level classrooms. The objective of this study is to identify what are the causes on the disruptions among digital natives in the tertiary level classrooms and further encourage on future research on curbing the disruptions among digital natives in tertiary level classrooms.

Literature Review

Technology development particularly on an innovation of digital devices has always been a focus the digital natives to get the latest gadgets and sophisticated which is easy to carry and used. According to Weaver and Nilson (2005) portable digital devices have become standard

must have equipment among students especially in the tertiary education sector. In classroom settings, digital devices which are used as educational tools have also seen growth (Bernard R. McCoy, 2013). There are pros and cons in the usage of digital devices in the classrooms among students. Paul Lam and Aiden Tong (2012) study's found out that many positive impacts during teaching and learning session relating the digital devices usage in class are acknowledged. However, leading to disruptive is a major concern as students may use the technology for irrelevant purposes in class (Paul Lam and Aiden Tong, 2012). Consequently, teachers or instructors are in dilemma on deciding to give permission the use of digital devices in the classrooms.

In 2009, Wang et. al stated that mobile devices can be used as intermediary medium for communication between teachers and friends. Besides that, there is a system that allowed students to comment on teaching through texting on mobile devices (Cobb et. al 2010). Salter in year 2010 reported, it has become a common practice now in universities where students use their own digital devices for a variety of purposes in the lecture hall.

Moreover, Driver (2002) found that laptops, coupled with web-based activities, enhanced satisfaction with group projects and overall class satisfaction. In large classes Barak, Lipson and Lerman (2006) claims that laptop and Wi-Fi usage can enhance active exploratory learning and promote more meaningful interactions between students and their instructors in large classes. Students also uses their laptops out of classes to do their work such as writing papers, using software programs, searching the internet and completing group projects (Arend, 2004). Therefore, it can be seen that, this net generation is eager to use digital devices in classrooms to get the information quickly, communicate with unlimited areas and prefers an active learning rather than passive learning.

Beside the benefits learning on the digital usage in the classroom, there also exists disadvantages of using this sophisticated devices. A survey conducted by Fried (2008) show that students who spent time with their notebooks during lecture were lying flat in understanding of course material and their overall course performance. Sometimes, college students used digital device for non-class purposes for activities with social media to overcome their boredom, entertain themselves and stay connected with other people (Bernad R, Mc. Coy, 2013). Tesch et al. (2011) reported that students rated use of digital devices to be a moderately distracting factor.

Negative attitudes will occur among the student if the digital device usage is under control such as received text during exams (Rubinkam 2010) and active text conversation (Froses 2012) during mock classroom and mobile phones ringing (Campbell 2006). These distracting factors are challenges to the instructor or teachers to gain their attention during the lecture on.

As teachers or instructors among digital natives who are the students, one has to be creative to make the lecture attractive with the digital devices. Christopher and Binhui (2011) said that teacher has integrated new technologies in their courses and turn them from digital native to digital wisdom (Marc Prensky 2011).

Methodology

Based on the objective of the study, the research was conducted in Universiti Tunku Abdul Rahman (UTAR), Perak, Malaysia. The criteria of selection were based on setting and convenience where it is also an urban university. Research was conducted on three different groups from two different faculties during a long trimester which lasts for 14 weeks. The level

chosen to conduct the research was on undergraduate level. Therefore, the students chosen based on convenience sampling.

According to Cohen, Mannion and Morrison (2007), convenience sampling involves choosing samples who are accessible and in this scenario, it was easy because the researcher are able to use back own students to conduct the study. A total of 50 students participated in the study. All the students were a mix of religion and culture and all of them are undergraduate students. This study employed a descriptive quantitative design. As to conduct an analysis from the data collection, the students were administered.

Only 50 students were chosen to participate in the research. The students were chosen in order to see the effectiveness from two different faculties in answering the questionnaire given. Therefore, there were 50 sets of questionnaires distributed and in the end, as for data analysis, all 50 sets of questionnaires were used in analyzing the data needed.

The main questions that were generated for this survey were:

- What are the digital devices often brought to class?
- What are the most common uses of the devices?
- How long do students spend using the devices in class?

A deeper understanding in the students' digital habits can provide insights on how educators should address digital disruptions in the classrooms.

Findings and Discussions

The survey involved 50 undergraduate students in Universiti Tunku Abdul Rahman (UTAR), Perak, Malaysia where their feedback on their digital habits in the classroom were obtained accordingly. There were 37 female participants and 13 male participants responded in this survey. Responses from female participants are shown in the below figures.

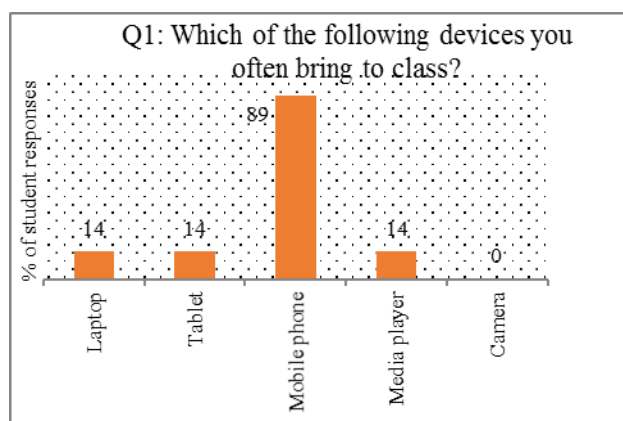


Fig 1: 89% bring mobile phone followed by 14% of students bring laptop, tablet and media player to the classrooms.

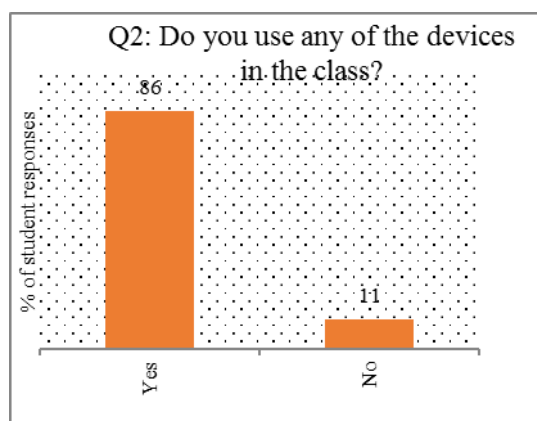


Fig 2: About 86% student uses digital devices for various purposes in the class.

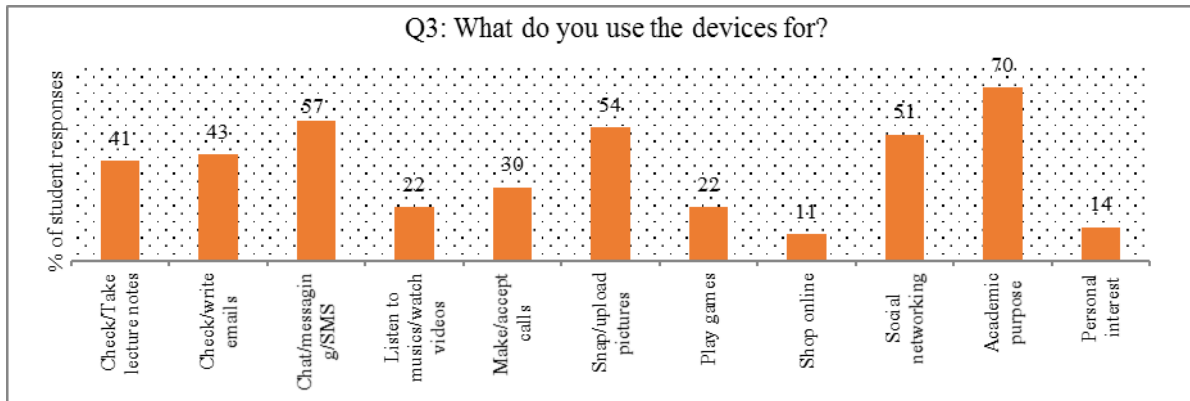


Fig. 3: 70% of students uses digital devices for academic purposes. This is followed by chat/messaging/SMS, snap/upload pictures and social networking such as Facebook and Twitter.

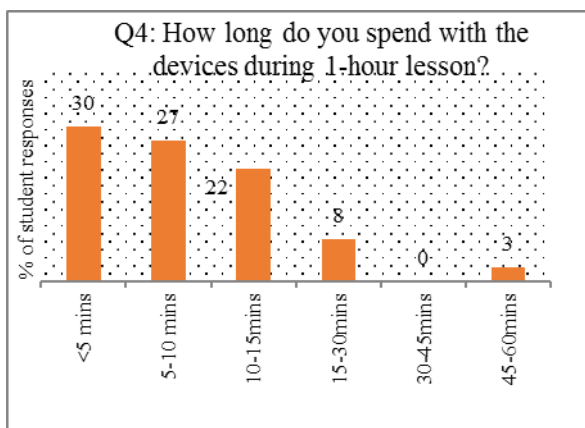


Fig 4: Most of the students spend <5 minutes with their devices in the classroom and 3% students uses devices for almost an hour in the class.

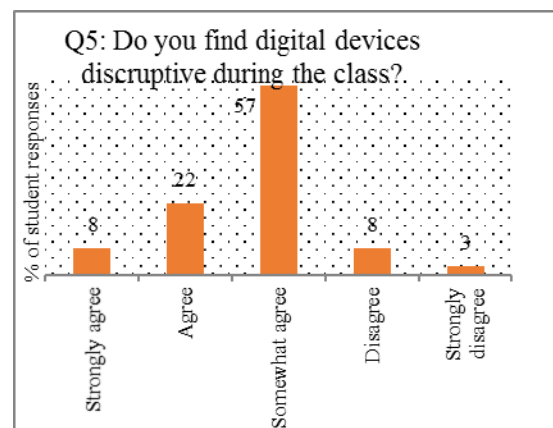


Fig 5: More than half of the participants agreed that the usages of digital devices are somewhat disrupting during lesson.

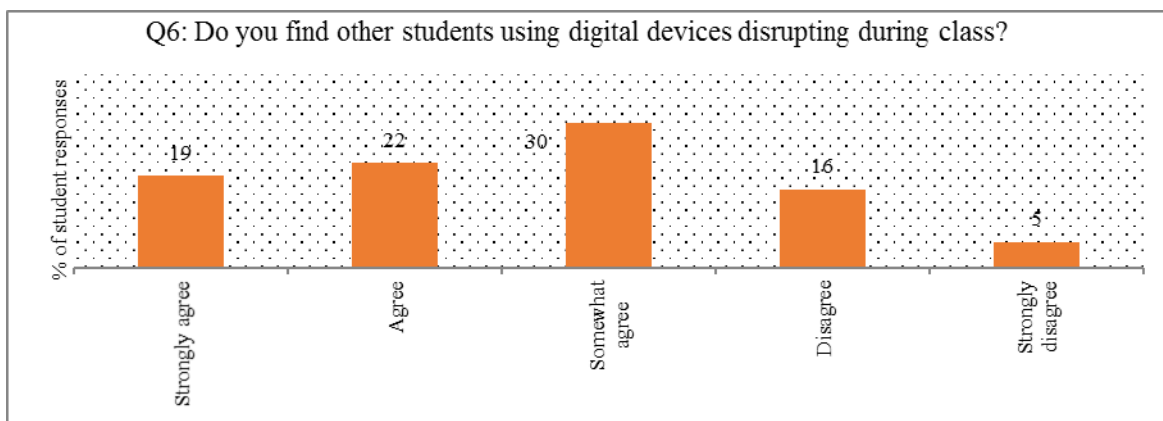


Fig 6: Most of the participants agreed that the usages of digital devices by other students are somewhat disrupting during the lessons.

On the other hand, responses from the male participants are as below:

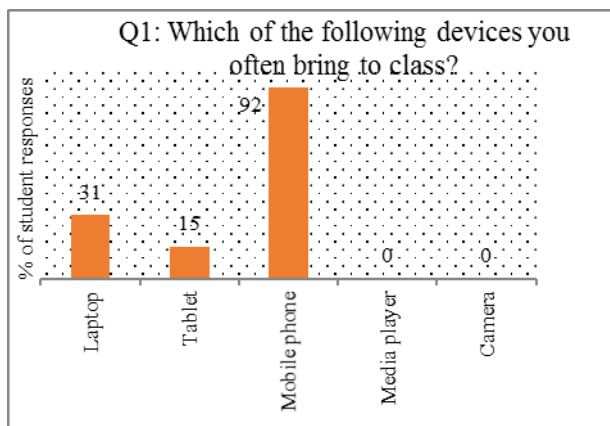


Fig 7: 92% bring mobile phone followed by 31% of students bring laptop to the classroom.

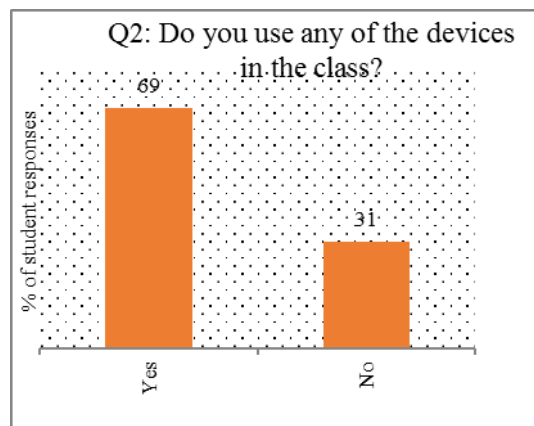


Fig 8: About 69% student uses digital devices for various purposes in the class.

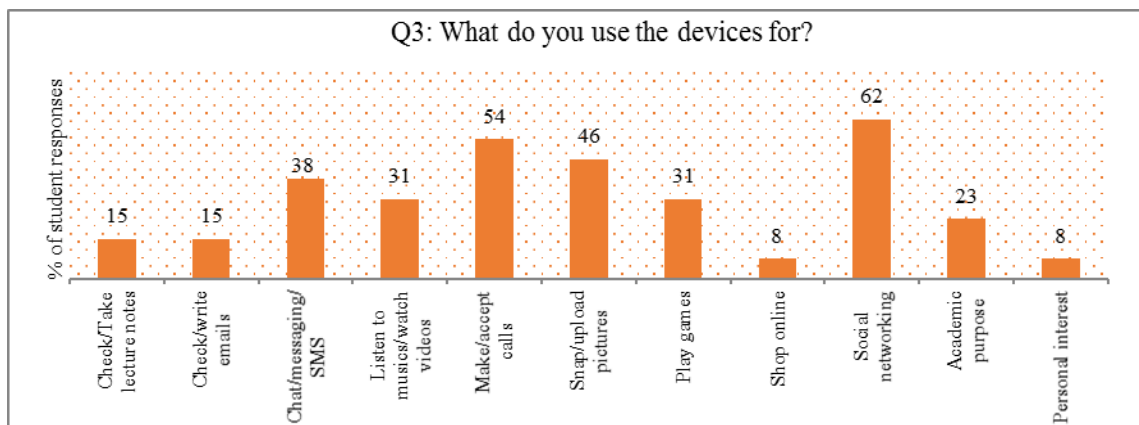


Fig. 9: 62% of students uses digital devises for academic purposes. About 54% uses digital devices to make/ accept calls followed by 46% who snap/ upload pictures.

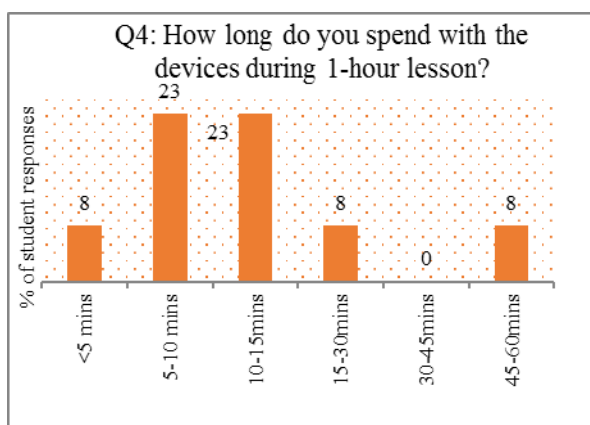


Fig 10: Most of the male students spend 5-15 minutes with their devices in the classroom where else 8% students uses devices for almost an hour in the class.

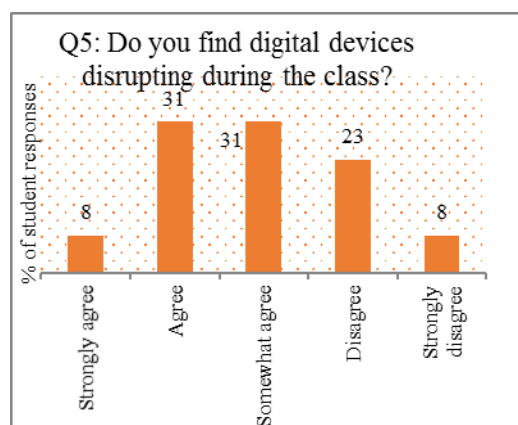


Fig 11: Most of the participants agreed that the usages of digital devices are somewhat disruptive during lesson.

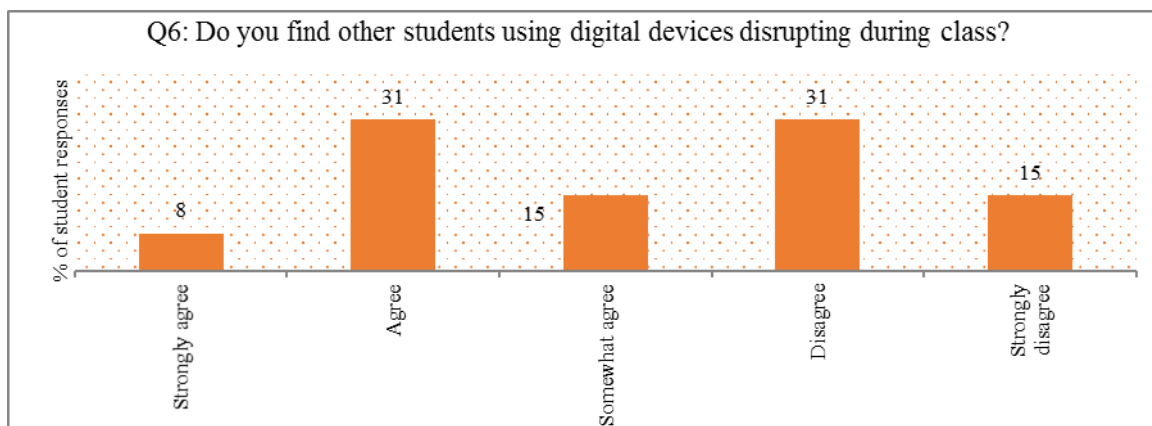


Fig 12: There is an equal distribution among participants who agree and disagree that the usage of digital devices somewhat disrupting the lesson.

Based on the survey conducted, it can be summarized that most of the students bring and use mobile phone in their classrooms for various purposes. Among the most common reason is for academic purpose for both male and female participants. However, educators need to pay thoughtful attention to other activities such as making or accepting calls, social networking, chatting, messaging or sending SMS(s) as well as snapping or uploading pictures which is certainly not beneficial for the students in the classrooms. Overall and in general, students use their digital devices for at 5-15 minutes of their one hour lesson which is enough to disrupt other students and most importantly to the users itself.

Through this study, students have also identified their learning distractions are caused by using digital devices. When students in the tertiary level classrooms multi-task with their digital devices, it may hamper their ability to pay attention. This then becomes a habitual behavior in which it is automatic and thus, results in disruptions and distracts classroom learning. Based on the results of the survey, digital habits of students in the classroom is at alarming state which can lead to other worrying issues such as impacting the students' academic excellence as well as the institute's overall academic achievement. Thus, effectual steps need to be exercised to limit the students from using digital devices for impractical purposes as it becomes disruptive in the tertiary level classrooms

Conclusion

This study attempted to identify the disruptions among digital natives in tertiary level classrooms which additionally contributes to the frequency with which students used their digital devices in the tertiary level classrooms. This study's results has expanded on the findings by identifying the usage of digital devices in the classrooms. The action research reports that most students bring and use their mobile phones in tertiary level classroom for various purposes. Each purpose of using mobile phones is different and according to the individual needs. The positive effect among students digital habits in using mobile phones are for academic purposes. However, it also has resulted negative effects of student engagement in using their mobile phones in tertiary level classrooms. For instance, making or accepting calls, being active in social networking, chatting, messaging or sending messages (SMS) as well as snapping or uploading pictures during their one hour lesson is certainly not beneficial for the students in the classrooms. This is because when students use their digital devices for 5-15 minutes in their one hour lesson; it is clearly shown that it is enough to disrupt other students and most importantly to the users itself. Therefore, the digital habits of students in the classroom is at an alarming state because if this scenario continues, it may lead to other

serious worrying issues such as creating an impact on students' academic excellence as well as on institute's overall academic achievement.

Overall, this research indicates that students using digital devices in tertiary level classroom brings more negative effects than positive effects. In order to it, it is challenging for educators to implement effectual steps to limit their students from using their digital devices for unnecessary purposes during their one hour lesson in tertiary level classrooms. Nevertheless, it is important to solve this alarming issue as soon as possible in order to enhance the learning quality among learners in the process of teaching and learning and also for the betterment of the tertiary level institutions. These trends, as indicated and identified through this research, will likely continue to expand and should contribute for future research, in identifying the motives and perceptions contributing through respondents' behavior which leads to disruptions of using digital devices in the classrooms. Apart from this, future researchers can also focus on comparing larger samples in identifying the mass number of disruptions caused among digital natives in using their digital devices in tertiary level classrooms and specifically on respondents to see if the usage of digital devices in tertiary classrooms are causing more disruptions or becoming less frequent as students grow older.

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